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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,863	06/19/2000	Istvan Novak	5181-62800	7061

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EXAMINER
BETTENDORF, JUSTIN P

ART UNIT	PAPER NUMBER
2817	

DATE MAILED: 04/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/596,863	NOVAK, ISTVAN	
	Examiner	Art Unit	
	Justin P. Bettendorf	2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 February 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 17-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 17-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *12 February 2002* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-15 and 17-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada et al. U.S. Patent No. 6,198,362 in view of Roy et al. "ESR and ESL of Ceramic Capacitor Applied to Decoupling Applications" (cited by the applicant as B19) and Novak "Reducing Simultaneous Switching Noise and EMI on Ground/Power Planes by Dissipative Edge Termination" (cited by the applicant as B15) {all of record, for reasons of record}.

Response to Arguments

3. Applicant's arguments filed 2/12/02 have been fully considered but they are not persuasive.

With respect to claim 1, applicant argues that the references do not teach that a separation distance is used to determine a mounted inductance.

This argument is not persuasive because apparatus claim 1 merely recites "wherein the mounted inductance Lm of each of the n capacitors is less than or equal to $(0.2 \bullet n \bullet \mu_o \bullet h)$ ... wherein h is a distance between the planar conductors." This recitation is merely describing a property of the capacitor, which is inherent to the device of Harada et al. because Harada et al. teaches that the undesired electromagnetic wave radiated from the power supply system is suppressed (col. 7, lines col. 50-65 and figure 6) which is the requirement for the value of the mounted inductance. That is, the undesired electromagnetic wave would not be suppressed unless the mounted inductance is less than the limit recited in the claim. As noted in MPEP

2112, the express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir.1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983). The claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977).

Applicant also argues with respect to claim 8 that the separation distance between the two planes is not determined.

This argument is not persuasive because figure 4 of Harada et al. clearly shows a distance between the two planes 12 and 13; therefore, the distance between the two planes was determined. Moreover, the Harada et al. reference teaches "the characteristic impedance depends on ... the size and structure of the transmission line" (col. 7, lines 40-42) This statement implies the distance between the two planes is factored into the determination of the characteristic impedance because it affects the size of the transmission line. As is known to one skilled in the art (see the Hayt, Jr. reference cited below, especially pages 435 and 439), the characteristic impedance of two plane transmission line is directly proportional to the distance therebetween, i.e. $Zo = \sqrt{(\mu/\varepsilon)}(h/b)$ where h is the distance between the two planes and b is the width of the planar transmission line.

With respect to claim 17, the applicant argues that a first "n1" and a second "n2" are not determined.

This argument is not persuasive because the Harada et al. reference teaches n (i.e., n1) decoupling capacitors based on reducing the total inductance (see col. 7, lines 56-58), which is determined with the teachings of the Novak and Roy et al. references in determining the total inductance. The Harada et al. reference further teaches that the capacitors must be less than ½ wavelength apart on the periphery of the board, thereby teaching or suggesting calculating the perimeter 2(x + y) and determining a second number (n2) of capacitors to achieve less than ½ wavelength (col. 8, lines 41-68). Therefore, if the second number (n2) is greater than the first n1, the calculations addressed in the references for resistance as noted in the rejection would have been required based on the number of capacitors (n1 or n2) selected.

Accordingly, the rejections are sustained.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hayt, Jr. Engineering Electromagnetics, pages 434-439 shows how the physical structure of the transmission line affects the characteristic impedance.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin P. Bettendorf whose telephone number is (703) 308-2780. The examiner can normally be reached on 6:00-3:30 (M-F, 1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert C. Pascal can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Justin P. Bettendorf
Primary Examiner
Art Unit 2817

jpb
April 17, 2002